

January 31, 2013

CDR Katharine Shobe  
Office of Naval Research (ONR 342)  
875 N. Randolph St.  
Arlington, VA 22203-1995

**Subject: Quarterly Performance/Technical Report of the National Marrow Donor Program®**

**Reference:** Grant Award #N00014-11-1-0339 between the Office of Naval Research and the National Marrow Donor Program

Dear CDR. Shobe:

Enclosed is subject document which provides the performance activity for each statement of work task item of the above reference for the period of October 1, 2012 to December 30, 2012.

Should you have any questions as to the scientific content of the tasks and the performance activity of this progress report, you may contact our Chief Medical Officer – Dennis L Confer, MD directly at 612-362-3425.

With this submittal of the quarterly progress report, the National Marrow Donor Program has satisfied the reporting requirements of the above reference for quarterly documentation. Other such quarterly documentation has been previously submitted under separate cover.

Please direct any questions pertaining to the cooperative agreement to my attention at 612-362-3403 or at [cabler@nmdp.org](mailto:cabler@nmdp.org).

Sincerely,



Carla Abler-Erickson, MA  
Contracts Manager

Enclosure: Quarterly Report with SF298

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<b>14. ABSTRACT</b> <p><u>1. Contingency Preparedness:</u> Collect information from transplant centers, build awareness of the Transplant Center Contingency Planning Committee and educate the transplant community about the critical importance of establishing a nationwide contingency response plan.</p> <p><u>2. Rapid Identification of Matched Donors :</u> Increase operational efficiencies that accelerate the search process and increase patient access are key to preparedness in a contingency event.</p> <p><u>3. Immunogenetic Studies:</u> Increase understanding of the immunologic factors important in HSC transplantation.</p> <p><u>4. Clinical Research in Transplantation:</u> Create a platform that facilitates multicenter collaboration and data management.</p>				
<b>15. SUBJECT TERMS</b> Research in HLA Typing, Hematopoietic Stem Cell Transplantation and Clinical Studies to Improve Outcomes				
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<b>19a. NAME OF RESPONSIBLE PERSON</b> Dennis L. Confer, MD - Chief Medical Office			<b>19b. TELEPHONE NUMBER (include area code)</b> 812.362.3425	

Grant Award N00014-11-1-0339

DEVELOPMENT OF MEDICAL TECHNOLOGY  
FOR CONTINGENCY RESPONSE TO MARROW TOXIC AGENTS  
QUARTERLY  
PERFORMANCE / TECHNICAL REPORT  
FOR  
OCTOBER 01, 2012 to DECEMBER 30, 2012  
PERIOD 8

Office of Naval Research

And

The National Marrow Donor Program  
3001 Broadway Street N.E.  
Minneapolis, MN 55413  
1-800-526-7809

**QUARTER PROGRESS REPORT****Development of Medical Technology for Contingency Response to Marrow Toxic Agents****October 01, 2012 through December 30, 2012**

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**IIA. Contingency Preparedness – Objective 1:** Recovery of casualties with significant myelosuppression following radiation or chemical exposure is optimal when care plans are designed and implemented by transplant physicians

<b>IIA.1 Task 1:</b> Secure Interest of Transplant Physicians	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>
<b>IIA.1 Task 2:</b> GCSF in Radiation Exposure	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>
<b>IIA.1 Task 3:</b> Patient Assessment Guidelines and System Enhancements	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>

**IIA 1 Task 4:** National Data Collection Model – This task is closed.

**IIA. Contingency Preparedness – Objective 2:** Coordination of the care of casualties who will require hematopoietic support will be essential in a contingency situation.

<b>IIA.2 Task 1:</b> Contingency Response Network	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>Hired an Instructional Design contractor to create RITN training materials for the NMDP web based Learning Management System:             <ul style="list-style-type: none"> <li>Materials completed include:                 <ul style="list-style-type: none"> <li>Introduction to RITN module</li> <li>RITN Overview of the use of the Government Emergency Telecommunications Service (GETS) Card</li> <li>RITN Overview of the use of Satellite Telephones</li> </ul> </li> <li>Materials to be developed include:                 <ul style="list-style-type: none"> <li>RITN Concept of Operations</li> </ul> </li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>○ Materials to be updated include: <ul style="list-style-type: none"> <li>▪ RITN Basic Radiation Training</li> </ul> </li> <li>• Postponed the Fullscale Exercise at Memorial Sloan Kettering Cancer Center in New York City due to hurricane Sandy</li> </ul>
<b>IIA.2 Task 2:</b> Sibling Typing Standard Operating Procedures	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>• No activity this period.</li> </ul>
<b>IIA. Contingency Preparedness – Objective 3:</b> NMDP's critical information technology infrastructure must remain operational during contingency situations that directly affect the Coordinating Center.	
<b>IIA.3 Task 1:</b> I.S. Disaster Recovery	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>• No activity this period.</li> </ul>
<b>IIA.3 Task 2:</b> Critical Facility and Staff Related Functions	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>• No activity this period.</li> </ul>
<b>IIB. Rapid Identification of Matched Donors – Objective 1:</b> Increasing the resolution and quality of the HLA testing of volunteers on the registry will speed donor selection.	
<b>IIB.1 Task 1:</b> Increase Registry Diversity	<b>Period 8 Activity:</b> <p>This period NMDP hosted additional lab visit meetings with representatives from two of the registry member recruitment HLA typing laboratories to discuss operational topics including: the current scope of work, future goals for registry HLA typing, and the laboratories' future HLA testing strategy. These discussions are critical to allow the NMDP to continue to provide low cost and high quality HLA typing on donors for patients searching the registry.</p>
<b>IIB.1 Task 2:</b> Evaluate HLA-DRB1 High Res typing – This task is closed.	
<b>IIB.1 Task 3:</b> Evaluate HLA-C Typing of Donors – This task is closed	

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<b>IIB.1 Task 4:</b> Evaluate Buccal Swabs	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>
<b>IIB 1 Task 5:</b> Enhancing HLA Data for Selected Donors – This task is closed.	
<b>IIB 1 Task 6:</b> Maintain a Quality Control Program	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>
<b>IIB. Rapid Identification of Matched Donors – Objective 2:</b> Primary DNA typing data can be used within the registry to improve the quality and resolution of volunteer donor HLA assignments.	
<b>IIB 2 Task 1:</b> Collection of Primary Data	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>
<b>IIB 2 Task 2:</b> Validation of Logic of Primary Data – This task is closed.	
<b>IIB 2 Task 3:</b> Reinterpretation of Primary Data – This task is closed.	
<b>IIB 2 Task 4:</b> Genotype Lists & Matching Algorithm	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>Implemented, deployed, and performance tested persistence implementations for the Silver Standard genotype list RESTful web service at <a href="http://gl.immunogenomics">://gl.immunogenomics</a>. This allows storage and transmission of HLA allele ambiguities without using human-curated letter ambiguity codes.</li> <li>Held an initial project meeting with collaborators on the IMPUTE project (to evaluate 5 algorithms performance on the imputation of HLA from SNPs in the MHC region) A detailed experimental plan has been drafted and it will inform an in-house alpha run of the experiment to be carried out in January 2013. We continue in our statistical evaluation of population differentiation within the optimal comparison units of the 1000 Genomes and Human Genome Diversity Panel datasets for the purpose of identifying which population samples can be combined for this study.</li> <li>Hosted the first Next-Generation Sequencing (NGS) Data Consortium in Puerto Rico in advance of the annual ASHI meeting, and a follow-up meeting between key NGS vendors and NGS software developers and the Immunogenomics Data-Analysis Working Group (IDAWG). These meetings have identified the core elements of a Minimum Information for Reporting an Immunogenomic</li> </ul>



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	<p>Genotyping Experiment (MIRIGE) MIBBI-type standard. The presentations from the NGS meeting are available on the IDAWG web-site (<a href="http://immunogenomics.org/ngs.html">immunogenomics.org/ngs.html</a>).</p> <ul style="list-style-type: none"> <li>Worked with collaborators to develop a Toolkit for Immunogenomic Data Exchange and Storage (TIDES) including a database for data queries, CGI upload, and format transformation, and deployed an alpha-version of TIDES on an AWS EC2 Linux instance (<a href="http://tides.immunogenomics.org">http://tides.immunogenomics.org</a>).</li> </ul>
<b>IIB. Rapid Identification of Matched Donors – Objective 3:</b> Registry data on HLA allele and haplotype frequencies and on the nuances of HLA typing can be used to design computer algorithms to predict the best matched donor.	
<b>IIB.3 Task 1:</b> Phase I of EM Haplotype Logic	<p><b>Period 8 Activity:</b></p> <ul style="list-style-type: none"> <li>Delivered a one-hour CME webinar, Case studies: Applying 2012 HLA matching guidelines for HCT selection to the NMDP Network transplant center audience. The program used case studies to apply the knowledge from Part I of the HLA educational program delivered in Q4, 2012. Approximately 275 transplant clinicians attended, representing 53% (74 of 139) of the US transplant centers. The program was rated highly useful, with 99% of participants indicating that they learned information that could apply to their practice. The program is now available online at <a href="http://marrow.org/Physicians/Medical_Education/Med_Ed_Programs/HLA_Matching_Guidelines_Two-Part_CME_Series.aspx">http://marrow.org/Physicians/Medical_Education/Med_Ed_Programs/HLA_Matching_Guidelines_Two-Part_CME_Series.aspx</a>.</li> <li>Delivered education on the CIBMTR publication on recommended screening and preventative practices for post-transplant care (citation below). The online continuing medical education (CME) course “Screening and Preventive Practices for Survivors after HCT” for hematologists/oncologists (transplant and non-transplant) offered through Medscape was launched in November and already has had more than 2,700 viewers. Additional metrics will be provided next quarter.               <ul style="list-style-type: none"> <li>Navneet Mahjail, et al., <i>Recommended screening and preventive practices for long-term survivors after hematopoietic cell transplantation; Center for International Blood and Marrow Transplant Research (CIBMTR), American Society for Blood and Marrow Transplantation (ASBMT), European Group for Blood and Marrow Transplantation (EBMT), Asia-Pacific Blood and Marrow Transplantation Group (APBMT), Bone Marrow Transplant Society of Australia and New Zealand (BMTSANZ), East Mediterranean Blood</i></li> </ul> </li> </ul>

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	<p><i>and Marrow Transplantation Group (EMBT) and Sociedade Brasileira de Transplante de Medula Ossea (SBTMO). BBMT 2012; 18(3): 348-371; BMT, 2012; 47(3): 337-341; and Hematol Oncol Stem Cell Ther, 2012; 5(1): 1-30.</i></p> <ul style="list-style-type: none"> <li>• Raised awareness of the PBSC vs. Marrow clinical trial results, published in New England Journal of Medicine (citation below). The large prospective, randomized study compared outcomes of patients receiving transplantation with either peripheral blood stem cells (PBSC) or bone marrow from unrelated donors. Efforts included announcements to Network transplant centers, hematology/oncology referring physicians, and a national press release. The manuscript received tremendous coverage, including more than 12 million media impressions. <ul style="list-style-type: none"> <li>○ Claudio Anasetti, et al., Peripheral-blood stem cells versus bone marrow from unrelated donors. NEJM 2012; 367:1487-1496.</li> </ul> </li> </ul>
<b>IIB 3 Task 2:</b> Enhancement of EM Algorithm	<p><b>Period 8 Activity:</b></p> <ul style="list-style-type: none"> <li>• One manuscript was published: <ul style="list-style-type: none"> <li>○ Loren Gragert, et al., Towards a global analysis of registry HLA haplotypes from 20 million individuals: a report from the IHIW Registry Diversity Project. International Journal of Immunogenetics, Dec 26, 2012 [Epub ahead of print]</li> </ul> </li> </ul>
<b>IIB 3 Task 3:</b> Optimal Registry Size Analysis	<p><b>Period 8 Activity: Copy 0142 and delete from 0142?</b></p> <p><b>Ancestry Questionnaire Project</b></p> <p>Initiated a pilot study to evaluate a novel self-identified race and ethnicity (SIRE) questionnaire in a sample of individuals from within the registry. This study design and objectives were presented at the annual NMDP Council meeting in November and is currently accruing subjects.</p>

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<b>IIB 3 Task 4:</b> Target Under- Represented Phenotypes	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>Continued development of Imputation Results (IMP_RES) database structure to support the output of Imputation of HLA data for research. Merged the haplotype frequency data structure into the DNA reference database.</li> <li>Developed new authentication login system for Haplostats. Developed graphical user interface enhancements for Haplostats.</li> </ul>
<b>IIB 3 Task 5:</b> Bioinformatics Web Site – This task is closed.	
<b>IIB 3 Task 6:</b> Consultants to Improve Algorithm – This task is closed.	
<b>IIB 3 Task 7:</b> Population Genetics – This task is closed.	
<b>IIB 3 Task 8:</b> Haplotype Matching – This task is closed.	
<b>IIB 3 Task 9:</b> Global Haplotype/Benchmark – This task is closed.	
<b>IIB. Rapid Identification of Matched Donors – Objective 4:</b> Reducing the time and effort required to identify closely matched donors for patients in urgent need of HSC transplants will improve access to transplantation and patient survival in the context of a contingency response and routine patient care.	
<b>IIB.4 Task 1:</b> Expand Network Communications – This task is closed.	
<b>IIB.4 Task 2:</b> Central Contingency Management	<b>Period 8 Activity:</b> 7/8 Donor Match Rate Study Testing was completed for the 7/8 donor validation project as well as for the analysis of the 9/10 match rate. During this period 3084 loci were typed for 2490 donors. Analysis and data clean up of typing results is underway and final 7/8 and 9/10 match rates for the 4 broad race groups will be determined in the next several weeks. An updated 8/8 and 10/10 match rate for all 4 race groups will also be calculated from these results. <ul style="list-style-type: none"> <li>One abstract was presented <ul style="list-style-type: none"> <li>Kevin Tram, et.al., Considering HLA-C matching for single cord blood unit transplants, Poster presentation at 2012 ASHI annual meeting. In brief, a cohort of primarily pediatric</li> </ul> </li> </ul>

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	single CBU transplants from December 2011 to February 2012 (n = 119) was examined to determine if a more fully matched x/8 (antigen level at HLA-A, B, C and allele level at HLA-DRB1) unit was available in the Be The Match Registry®. Of the 119 single CBU transplants assessed, 79 (66%) of the transplants had the best matched unit while 40 (34%) had a better matched unit available. The cell dose of the better matched unit was higher in 42.5% of cases, with the median change in cell dose of -9.3%.
<b>IIB.4 Task 3:</b> Benchmarking Analysis – This task is closed.	
<b>IIB.4 Task 4:</b> Expand Capabilities of Collection and Apheresis Centers – This task is closed.	
<b>IIC. Immunogenetic Studies – Objective 1:</b> HLA mismatches may differ in their impact on transplant outcome, therefore, it is important to identify and quantify the influence of specific HLA mismatches. In contingency situations it will not be possible to delay transplant until a perfectly matched donor can be found.	
<b>IIC.1 Task 1:</b> Donor Recipient Pair Project	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>No activity this period.</li> </ul>
<b>IIC. Immunogenetic Studies – Objective 2:</b> Even when patient and donor are HLA matched, GVHD occurs so other loci may play a role.	
<b>IIC 2 Task 1:</b> Analysis of non-HLA loci	<b>Period 8 Activity:</b> <ul style="list-style-type: none"> <li>Developed new reports (study sideways) for Immunobiology Project Results (IPR) database</li> <li>Developed pre/post B-C linkage and DRB3,4,5 linkage reports for IPR.</li> </ul>
<b>IIC 2 Task 2:</b> Related Pairs Research Repository – This task is closed.	
<b>IIC 2 Task 3:</b> CIBMTR Integration – This task is closed.	

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**IID. Clinical Research in Transplantation – Objective 1:** Clinical research in transplantation improves transplant outcomes and supports preparedness for a contingency response.

**IID.1 Task 1:**

Observational  
Research, Clinical  
Trials and NIH  
Transplant Center

**Period 8 Activity:**

- An abstract summarizing the results of the Revlamid trial was accepted for an oral presentation at the 2013 BMT Tandem meetings. Staff worked with the Principal investigator of the Revlamid trial to further analyze the data and create slides for the presentation in February.
- Activities continued on the Long Term Donor Follow up project. Survey Research Group (SRG) staff made outreach to accrued donors whose follow-up time point became due during this quarter. A total of 970 donors were reached and data form completed. Donor Centers continue to actively perform consent sessions with donors during their standard work-up process. During this reporting period overall accrual reached almost 14,000 donors which is 43% of the accrual goal of 32,128.
- As part of the CMS-MDS study accrual and data submission continued. Form payment of the comprehensive research forms required to meet the objectives of the study was completed. A total of 82 recipient CRF set of payments were covered.

**Cord Blood Research**

- Training and validation testing was completed for the assay methodologies of the study investigating biomarkers associated with cord blood engraftment in order to ensure the generation of consistent results at both testing sites of Duke and SLCBB.
  - Training comprised of two testing phases.
    - For phase one, the expected inter-laboratory threshold for acceptable testing results was a coefficient of variation (CV)  $\leq 20\%$ . The data analysis of the results showed a %CV of 12.69 for set one and 9.62 for set two and determined to be acceptable for the initiation of the second phase of testing.
    - For phase two, the expected inter-laboratory threshold for acceptable testing results was a reliability  $\geq 80\%$ . The data analysis of the results showed a reliability of 89% and

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	<p>determined to be acceptable for the initiation of the validation phase of testing.</p> <ul style="list-style-type: none"> <li>○ Data analysis for the validation phase is on-going and will be reported in the next quarter.</li> <li>• Work continued on a study to assess CBU characteristics (viability, TNC, CFU and CD34) pre-freeze and post thaw. <ul style="list-style-type: none"> <li>○ The study proposal was presented to the Cord Blood Advisory Group in November and subsequently finalized by the task force. The proposal was then submitted to the CIBMTR and accepted for presentation to the Graft Sources and Manipulation Working Committee meeting during Tandem 2013.</li> </ul> </li> <li>• Work continued on the development of the anti-HLA donor specific antibody study of recipients transplanted with cord blood units.</li> </ul>
<b>IID.1 Task 2:</b> Research with NMDP Donors – This task is closed.	
<b>IID.1 Task 3:</b> Expand Immuno-biology Research	<p><b>Period 8 Activity:</b></p> <ul style="list-style-type: none"> <li>• No activity this period.</li> </ul>

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AABB	American Association of Blood Banks	IBWC	Immunobiology Working Committee
ABD	Antigen Binding Domain	ICRHER	International Consortium for Research on Health Effects of Radiation
AFA	African American	IDAWG	Immunogenomics Data-Analysis Working Group
AGNIS	A Growable Network Information System	IDM	Infectious Disease Markers
AML	Acute Myelogenous Leukemia	IHIW	International HLA and Immunogenetics Workshop
APBMT	Asia-Pacific Blood and Marrow Transplantation	IHWG	International Histocompatibility Working Group
API	Asian Pacific Islander	IIDB	Immunobiology Integration Database
ARS	Acute Radiation Syndrome (also known as Acute Radiation Sickness)	IMP_RES	Imputation Results
ASBMT	American Society for Blood and Marrow Transplantation	IPR	Immunobiology Project Results
ASHI	American Society for Histocompatibility and Immunogenetics	IMGT	ImMunoGeneTics
ASTHO	Association of State and Territorial Health Officials	IND	Investigational New Drug
B-LCLs	B-Lymphoblastoid Cell Lines	IS	Information Services
BARDA	Biomedical Advanced Research and Development Authority	IT	Information Technology
BBMT	Biology of Blood and Marrow Transplant	IRB	Institutional Review Board
BCP	Business Continuity Plan	JCAHO	Joint Commission on Accreditation of Healthcare Organizations
BCPeX	Business Continuity Plan Exercise	KIR	Killer Immunoglobulin-like Receptor
BMCC	Bone Marrow Coordinating Center	MDACC	MD Anderson Cancer Center
BMDW	Bone Marrow Donors Worldwide	MDS	Myelodysplastic Syndrome
BMT	Bone Marrow Transplantation	MHC	Major Histocompatibility Complex
BMT CTN	Blood and Marrow Transplant - Clinical Trials Network	MIBBI	Minimum Information for Biological and Biomedical Investigations
BMTSANZ	Bone Marrow Transplant Society of Australia and New Zealand	MICA	MHC Class I-Like Molecule, Chain A
BODI	Business Objects Data Integrator	MICB	MHC Class I-Like Molecule, Chain B

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BRT	Basic Radiation Training	MIRIGE	Minimum Information for Reporting Immunogenomic Genotyping Experiment
C&A	Certification and Accreditation	MKE	Milwaukee
CAU	Caucasian	MRD	Minimal Residual Disease
CBMTG	Canadian Blood and Marrow Transplant Group	MSKCC	Memorial Sloan-Kettering Cancer Center
CBB	Cord Blood Bank	MSP	Minneapolis
CBC	Congressional Black Caucus	MUD	Matched Unrelated Donor
CBS	Canadian Blood Service	NAC	Nuclear Accident Committee
CBU	Cord Blood Unit	NACCHO	National Association of County and City health Officials
CEP	Collect Eject Protect	NCBM	National Conference of Black Mayors
CHTC	Certified Hematopoietic Transplant Coordinator	NCI	National Cancer Institute
CIBMTR	Center for International Blood & Marrow Transplant Research	NEMO	N-locus Expectation-Maximization using Oligonucleotide typing data
CIT	CIBMTR Information Technology	NGS	Next-Generation Sequencing
CLIA	Clinical Laboratory Improvement Amendment	NHLBI	National Heart Lung and Blood Institute
CME	Continuing Medical Education	NIH	National Institutes of Health
CMF	Community Matching Funds	NIMS	National Incident Management System
CMS	Centers for Medicare & Medicaid Services	NK	Natural Killer
COG	Children's Oncology Group	NLE	National Level Exercise
CREG	Cross Reactive Groups	NMDP	National Marrow Donor Program
CRF	Comprehensive Report Forms	NRP	National Response Plan
CSS	Center Support Services	NST	Non-myeloablative Allogeneic Stem Cell Transplantation
CT	Confirmatory Testing	OCR/ICR	Optical Character Recognition/Intelligent Character Recognition
CTA	Clinical Trial Application	OIT	Office of Information Technology
DC	Donor Center	OMB	Office of Management and Budget
DHHS-ASPR	Department of Health and Human Service – Assistant Secretary Preparedness and Response	ONR	Office of Naval Research
DIY	Do it yourself	P2P	Peer-to-Peer
DKMS	Deutsche Knochenmarkspenderdatei	PBMC	Peripheral Blood Mononuclear Cells



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DMSO	Dimethylsulphoxide	PBSC	Peripheral Blood Stem Cell
DoD	Department of Defense	PCR	Polymerase Chain Reaction
DNA	Deoxyribonucleic Acid	PSA	Public Service Announcement
DR	Disaster Recovery	QC	Quality control
D/R	Donor/Recipient	RCC	Renal Cell Carcinoma
EBMT	European Group for Blood and Marrow Transplantation	RCI BMT	Resource for Clinical Investigations in Blood and Marrow Transplantation
EDC	Electronic Data Capture	REAC/TS	Radiation Emergency Assistance Center/Training Site
EFI	European Federation of Immunogenetics	REMM	Radiation Emergency Medical Management
EM	Expectation Maximization	RFP	Request for Proposal
EMBMT	East Mediterranean Blood and Marrow Transplantation	RFQ	Request for Quotation
EMDIS	European Marrow Donor Information System	RG	Recruitment Group
ENS	Emergency Notification System	RITN	Radiation Injury Treatment Network
ERSI	Environment Remote Sensing Institute	SBT	Sequence Based Typing
FBI	Federal Bureau of Investigation	SBTMO	Sociedade Brasileira de Transplanted de Medula Ossea
FDA	Food and Drug Administration	SCTOD	Stem Cell Therapeutics Outcome Database
FDR	Fund Drive Request	SG	Sample Group
FEMA	Federal Emergency Management Agency	SIRE	Self-Identified Race and Ethnicity
FLOCK	Flow Cytometry Analysis Component	SLCBB	St. Louis Cord Blood Bank
Fst	Fixation Index	SLW	STAR Link® Web
GETS	Government Emergency Telecommunications Service	SRG	Survey Research Group
GCSF	Granulocyte-Colony Stimulating Factor (also known as filgrastim)	SSA	Search Strategy Advice
GIS	Geographic Information System	SSO	Sequence Specific Oligonucleotides
GL	Genotype List	SSP	Sequence Specific Primers
GvHD	Graft vs Host Disease	SSOP	Sequence Specific Oligonucleotide Probes
HCS	HealthCare Standard	STAR®	Search, Tracking and Registry
HCT	Hematopoietic Cell Transplantation	TC	Transplant Center
HEPP	Hospital Emergency Preparedness Program	TED	Transplant Essential Data

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HHQ	Health History Questionnaire	TIDES	Toolkit for Immunogenomic Data Exchange and Storage
HHS	Health and Human Services	TNC	Total Nucleated Cell
HIPAA	Health Insurance Portability and Accountability Act	TSA	Transportation Security Agency
HIS	Health Information System	UI	User Interface
HIS	Hispanic	UML	Unified Modeling Language
HLA	Human Leukocyte Antigen	URD	Unrelated Donor
HML	Histoimmunogenetics Mark-up Language	WGA	Whole Genome Amplification
HR	High Resolution	WMDA	World Marrow Donor Association
HRSA	Health Resources and Services Administration	WU	Work-up
HSC	Hematopoietic Stem Cell		